

REMARKS

By this Amendment, Applicants propose to amend claims 1, 3, 4, 10, 12, 13, 19, 21, and 22. Claims 1-27 remain pending upon entry of this Amendment.

In the Office Action of May 20, 2004¹ ("OA"), claims 4, 6, 13, 15, 22, and 24 were objected to as being dependent upon a rejected base claim but were indicated as drawn to allowable subject matter; claims 1-3, 5, 8, and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,898,793 to *Karron et al.* ("*Karron*"); claims 10-12, 14, 17, 18, 19-21, 23, 26, and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Karron*; and claims 7, 16, and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Karron* in view of U.S. Patent No. 5,448,686 to *Borrel et al.* ("*Borrel*"). Applicants acknowledge with appreciation the indication of allowable subject matter and address the rejections and objection below.

Objection to claims 4, 6, 13, 15, 22, and 24

The Examiner objected to claims 4, 6, 13, 15, 22, and 24 as being dependent upon a rejected base claim, indicating that these claims would be allowable if rewritten in independent form with the limitations of the respective base and intervening claims. Claims 4, 13, and 22 are rewritten in independent form and include the respective base claim recitations. Because claims 4, 13, and 22 are now in the form the Examiner indicated would be allowable, and since claims 6, 15, and 24 depend from allowable base claims 4, 13, and 22, respectively, Applicants request withdrawal of the objection and the timely allowance of claims 4, 6, 13, 15, 22, and 24.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Rejection of claims 1-3, 5, 8, and 9 under 35 U.S.C. § 102(b)

Applicants traverse the rejection of claims 1-3, 5, 8, and 9 under 35 U.S.C. § 102(b) because, as currently presented, these claims are not anticipated by *Karron*. In order to properly anticipate Applicants' claimed invention under 35 U.S.C. § 102(b), each and every element of the claim at issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Further, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim[s]." See M.P.E.P. § 2131. Finally, "[t]he elements must be arranged as required by the claim." *Id.*

Claim 1 recites a combination including:

identifying a second plurality of n-dimensional components located on an outer perimeter of said image that abut or overlap at least one side of one m-sided cell in said grid; and

identifying at least one occluded portion of the image based on the identified second plurality of n-dimensional components.

Karron fails to anticipate claim 1. *Karron* describes a system for "surface rendering...of arbitrary structures within the interior of a solid body" (Abstract). *Karron* does not teach or suggest at least "identifying at least one occluded portion of the image based on the identified second plurality of n-dimensional components," as recited in claim 1². Although *Karron* mentions computing "intersects between the voxel face and the surface structure" (col. 4, lines 50-55), it does not teach or suggest "identifying at least one occluded portion of the image," as claimed.

Because *Karron* does not teach or suggest each and every feature of claim 1, as a matter of law, it cannot anticipate this claim. As such, the rejection of claim 1 under

² Although Applicants note other features of claim 1 that distinguish it from *Karron*, Applicants do not acquiesce to the Examiner's allegations (OA at 2) that *Karron* discloses the "generating" and "superimposing" features of claim 1.

35 U.S.C. § 102(b) based on *Karron* should be withdrawn. The rejection of claims 2, 3, 5, 8, and 9 should be withdrawn as well, at least because of the respective dependence of those claims from base claim 1. Applicants thus request withdrawal of the rejection under 35 U.S.C. § 102(b) and the timely allowance of claims 1-3, 5, 8, and 9.

Rejection of claims 10-12, 14, 17, 18, 19-21, 23, 26, and 27 under 35 U.S.C. § 103(a)

Applicants traverse the rejection of claims 10-12, 14, 17, 18, 19-21, 23, 26, and 27 because a *prima facie* case of obviousness has not been established. To establish *prima facie* obviousness under 35 U.S.C. § 103(a), three requirements must be met. First, the applied references, taken alone or in combination, must teach or suggest each and every element recited in the claims. *See* M.P.E.P. § 2143.03 (8th ed. 2001). Second, there must be some suggestion or motivation, either in the reference(s) or in the knowledge generally available to one of ordinary skill in the art, to combine or modify the reference(s) in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of these requirements must “be found in the prior art, and not be based on applicant’s disclosure.” M.P.E.P. § 2143 (8th ed. 2001).

A *prima facie* case of obviousness has not been established because, among other things, *Karron* fails to teach or suggest each and every element recited in Applicants’ claims.

Independent claims 10 and 19, although of different scope, include features similar to those of claim 1 discussed above. In particular, claims 10 recites, *inter alia*, “a module identifying at least one occluded portion of the image based on the identified second plurality of n-dimensional components” and claim 19 recites, *inter alia*, “identifying at least one hidden portion of the image based on the identified second plurality of n-dimensional components.” For at least reasons similar to those given above in connection with claim 1, *Karron* does not teach or suggest at least the above-noted features of claims 10 and 19. For at least this reasons, a *prima*

facie case of obviousness has not been established with respect to claims 10 and 19 based on *Karron*.

In rejecting claims 10 and 19, the Examiner alleges: “it would have been obvious...to embody the system and method of *Karron* as an apparatus [and]...a machine-readable storage device...” (OA, pages 3-4). Whether or not these allegations are valid,³ a *prima facie* case of obviousness has not been established at least because *Karron* fails to teach or suggest each and every element of claims 10 and 19, as explained above.

For at least the foregoing reasons, the rejection of independent claims 10 and 19 under 35 U.S.C. § 103(a) should be withdrawn. Likewise, the rejection of claim 11, 12, 14, 17, 18, 20, 21, 23, 26, and 27 should be withdrawn, at least because of the respective dependence of those claims from base claims 10 and 19. Applicants thus request withdrawal of the rejection under 35 U.S.C. § 103(a) and the timely allowance of claims 10-12, 14, 17, 18, 19-21, 23, 26, and 27.

Rejection of claims 7, 16, and 25 under 35 U.S.C § 103(a)

Claim 7 depends from base claim 1; claim 16 depends from base claim 10; and claim 25 depends from base claim 19. As explained above, *Karron* fails to teach or suggest each and every element recited in claims 1, 10, and 19. *Karron*, therefore, fails to teach or suggest each and every element recited in dependent claims 7, 16, and 25.

Borrel fails to cure *Karron*’s deficiencies. *Borrel* describes a method for preparing “on object for display” (Abstract). Specifically, *Borrel* is directed to the “suppression of image detail” to reduce computational expense (col. 1, lines 29-32; lines 50-66). *Borrel* does not disclose, for example, “identifying at least one occluded [or hidden] portion of the image based

³ The Examiner alleges that “it is well known that any method of image processing may be embodied as a device to carry out that method” (OA at 3-4). Applicants do not acquiesce to these allegations, and the Examiner provides no evidence, beyond pure conjecture, to support the allegations.

on the identified second plurality of n-dimensional components,” as claimed. For at least this reason, a *prima facie* case of obviousness has not been established with respect to claims 7, 16, and 25.

Even if all of the elements recited in claims 7, 16, and 25 could be found in some combination of *Karron* and *Borrel*—to which Applicants do not acquiesce—a *prima facie* case of obviousness has not been established at least because the requisite motivation to combine the references is lacking. Determinations of obviousness must be supported by evidence on the record. See *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (finding that the factual determinations central to the issue of patentability, including conclusions of obviousness by the Board, must be supported by “substantial evidence”). The desire to combine references must be proved with “substantial evidence” that is a result of a “thorough and searching” factual inquiry. *In re Lee*, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002) (quoting *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52).

In this case, the Office Action provides no “substantial evidence” to support the attempted combination of *Karron* and *Borrel*. For example, the Examiner has not shown, by substantial evidence, that a skilled artisan considering the cited references, and not having the benefit of Applicants’ disclosure, would have been motivated to combine the references in a manner resulting in Applicants’ claimed combination. The Examiner merely provides a description of how *Borrel* allegedly teaches certain features without a proper motive for combining *Karron* and *Borrel*.

The Examiner alleges (OA at 4) that a skilled artisan would have combined *Karron* and *Borrel* “because it is desirable to be able to increase the resolution for applications requiring high accuracy, and decrease the resolution for applications requiring conservation of processing

power.” This statement is not supported by substantial evidence and does not provide the requisite motivation. Regardless of whether or not the above allegations are valid, the Examiner has not established that a skilled artisan considering *Karron* and *Borrel*, and not having the benefit of Applicants’ disclosure, would have been motivated to combine the references in a manner resulting in the invention defined by Applicants’ claims.

Applicants call attention to M.P.E.P. § 2143.01, which makes clear that “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (citations omitted).” The Office Action fails to show that either *Karron* or *Borrel* “suggests the desirability of the” combination.

Also, M.P.E.P. § 2143 instructs that the requirements for establishing *prima facie* obviousness must “be found in the prior art, and not be based on applicant’s disclosure.”

M.P.E.P. § 2143 (8th ed. 2001). M.P.E.P. § 2142 articulates:

Knowledge of applicant's disclosure must be put aside....
[I]mpermissible hindsight must be avoided and the legal
conclusion must be reached on the basis of the facts gleaned from
the prior art.

Applicants submit that the conclusions in the Office Action were not reached based on facts gleaned from the cited references and that, instead, Applicants’ claims were improperly used to reconstruct the prior art. Applicants submit that the conclusions in the Office Action constitute improper hindsight reasoning.

For at least the foregoing reasons, Applicants request withdrawal of the rejection of claims 7, 16, and 25 under 35 U.S.C. § 103(a) and the timely allowance of these claims.

Conclusion

Applicants request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner. The proposed amendments of claims 1, 3, 4, 10, 12, 13, 19, 21, and 22 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. This Amendment should therefore allow for immediate action by the Examiner.

Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicants' invention. Entry of this Amendment would allow Applicants to reply to the final rejections and place the application in condition for allowance, or in better form for appeal, should the Examiner dispute the patentability of the pending claims.


The claimed invention is neither anticipated nor rendered obvious in view of the references cited against this application. Applicants therefore request the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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By: 
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